

CLAIMS

Subj 1. A device for calculating a white balance control amount for an electronic still camera, comprising:

an image signal generating processor that generates an image signal corresponding to a first image formed on a light receiving surface of an imaging device;

an image area extracting processor that extracts at least one image area, which contains a second image of a subject positioned at a predetermined distance from said electronic still camera, from said first image; and

a control amount calculating processor that calculates a control amount for performing a white balance adjustment, based on said image signal relating to said at least one image area.

15 2. A device according to claim 1, wherein said image area extracting processor extracts a single image area, and said control amount calculating processor calculates said control amount, based on said image signal relating to said single image area which is extracted by said image area extracting processor.

3. A device according to claim 2, wherein said second image is in-focus, and said single image area is extracted by selecting pixels from said first image, said pixel corresponding to points within a predetermined range from said predetermined distance.

4. A device according to claim 1, wherein said image area extracting processor extracts a plurality of image areas from said first image, and said control amount calculating processor calculates said control amount for each of said 5 plurality of image areas.

5. A device according to claim 4, wherein said image area extracting processor divides said first image to obtain said plurality of image areas, based on distances of subjects included in said first image.

10 6. A device according to claim 1, wherein said control amount calculating processor extracts a third image composed of an achromatic color from said second image of said image area extracted by said image area extracting processor, and calculates said control amount based on only said third 15 image.

7. A device according to claim 1, wherein said image area extracting processor comprises a three dimensional image data sensing processor that senses three dimensional data indicating a distance from said electronic still camera to 20 each point on a surface of said subject.

8. A device according to claim 7, wherein said three dimensional image data sensing processor comprises a light source radiating a distance measuring light beam onto said subject, and a three dimensional image signal generating 25 processor that generates three dimensional data indicating a

distance from said electronic still camera to each point on a surface of said subject.

9. A device according to claim 8, wherein said three dimensional image signal generating processor comprises said 5 image signal generating processor.

10. A device according to claim 8, wherein said three dimensional image signal generating processor comprises:

10 a plurality of photoelectric conversion elements that receive a reflected light beam from said subject, so that signal charge corresponding to an amount of said received reflected light beam is accumulated in each of said 15 photoelectric conversion elements;

a signal charge holding unit disposed adjacent to each of said photoelectric conversion elements;

15 an electric charge discharging processor that discharges unwanted charge accumulated in each of said photoelectric conversion elements, so that said accumulation of said signal charge is started in each of said photoelectric conversion elements;

20 a signal charge transfer processor that transfers said accumulated signal charge in said photoelectric conversion elements to said signal charge holding unit; and

25 a signal charge integrating processor that drives said electric charge discharging processor and said signal charge transfer processor alternately, so that said signal charge is

integrated in said signal charge holding unit.

11. A device for calculating a white balance control amount for an electronic still camera which photographs an image containing at least one subject and at least one portion other than said at least one subject, said white balance control amount calculating device comprising:

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an imaging device by which an image signal corresponding to said image is generated;

an image area extracting processor that extracts at least one image area, each containing one of said at least one subject, from said image; and

a control amount calculating processor that calculates a control amount for performing a white balance adjustment, based on said image signal relating to said image area.